Abstract

The Perija Range is a mountain system located in the northwestern corner of Southamerica; upon western flank outcrop its rocks from La Quinta and Rio Negro formations, and the Cogollo Group that were deposited from the Jurassic to Early Cretaceous. Paleomagnetic analysis allow to document rotations on vertical axis and traslation of geologic terranes along of North Andes, especially those related with the Pangea fragmentation as the Mexican Blocks (Yucatán, Chortis, etc) and the Santa Marta Massif. Twenty nine paleomagnetic sites distributed in three areas from the western flank of the Perija Range were analyzed for testing if had changes in the rotation magnitude in several structural domains. In all, we colected 17 sites in the La Quinta Fm., 9 in the Rio Negro Fm. and 3 in the Cogollo Group. The results of our study were integrated to the paleomagnetic data reported from eastern flank allow us document clockwise rotations of 41±13° for Jurassic rocks and 45±13° for Cretaceous rocks. The values of positive inclination allow us suggest a stable paleolatitudinal position for the PR, adjacent to the Craton, between the Jurassic (+7.5°) and Cretaceous (+9.2°). This paleolatitudinal stability is opposite to the northward traslation given for the Santa Marta Massif in previous studies, inferring that between these blocks in subsoil should be exist a paleosuture in late Jurassic.

Keywords

Paleomagnetism, Perija Range, Jurassic, Cretaceous, Southamerica, Pangea.